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L5: Entry 1 of 58 File: USPT Oct 15, 2002

US-PAT-NO: 6465621
DOCUMENT-IDENTIFIER: US 6465621 B1

TITLE: Compounds

DATE-ISSUED: October 15, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Black; Michael Terence	Chester Springs	PA		
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Reichard; Raymond Winfield	Quakertown	PA		
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ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
SmithKline Beecham Corporation	Philadelphia	PA			02
SmithKline Beecham plc	Brentford			GB	03

APPL-NO: 09/ 631548 [PALM]
DATE FILED: August 3, 2000

PARENT-CASE:
RELATED APPLICATIONS This application is a division of application Ser. No. 08/879,098, filed Jun. 19,1997, now U.S. Pat. No. 6,248,556, which claims benefit of U.S. Provisional Application No. 60/011,888, filed Feb. 20, 1996, PCT Application, International Application No. PCT/US97/02547, filed Feb. 19, 1997, and PCT Application, International Application No. PCT/US97/02318, filed Feb. 19, 1997.

INT-CL: [07] C07 K 17/00, C07 K 14/00, C12 P 21/00

US-CL-ISSUED: 530/350; 530/350, 530/300, 530/324, 435/69.7, 435/69.1, 435/91.4, 435/252.3, 435/320.1, 435/325, 536/23.1 , 536/23.7, 536/24.3
US-CL-CURRENT: 530/350; 435/252.3, 435/320.1, 435/325, 435/69.1, 435/69.7, 435/91.4, 530/300, 530/324, 536/23.1, 536/23.7, 536/24.3

FIELD-OF-SEARCH: 530/350, 530/300, 530/324, 435/69.7, 435/69.1, 435/91.4, 435/252.3, 435/320.1, 435/325, 536/23.1, 536/23.7, 536/24.3

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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L3: Entry 1 of 1 File: USPT Nov 28, 2000

DOCUMENT-IDENTIFIER: US 6153210 A
TITLE: Use of locally delivered metal ions for treatment of periodontal disease

Detailed Description Text (39):
While the microbiocidal activity of silver ions against *S.sobrinus*, *S.mitis* and *S.mutans* is apparently relatively low, these results do not detract from the inventive use of silver ions in treating periodontal disease since these microorganisms are not considered to be periodontal disease-causing pathogens. In fact, these results demonstrate the enhanced microbe selectivity that silver ions possess for eradicating periodontal disease-causing pathogens.

Other Reference Publication (2):
Fung et al. JL. Toxicology Clinical Toxicology 34(1): 119-126 Silver Products for Medical Indications: Risk-Benefit Ass; Silver Nitrate-Silver Sulfadiazine-Silver Protein (Mild)-Colloidal Silver (CSP), 1996.

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L3: Entry 1 of 1 File: USPT Nov 28, 2000

US-PAT-NO: 6153210
DOCUMENT-IDENTIFIER: US 6153210 A

TITLE: Use of locally delivered metal ions for treatment of periodontal disease

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roberts; F. Donald	Dover	MA		
Friden; Phillip M.	Bedford	MA		
Spacciapoli; Peter	Newbury	MA		
Nelson; Eric	Waltham	MA		

US-CL-CURRENT: 424/411; 424/422, 424/424, 424/425, 424/426, 424/435, 424/444, 424/445

CLAIMS:

What is claimed is:

1. A method of treating or preventing periodontitis in an individual comprising:

administrating to a periodontal pocket or oral surgical site of said individual a polymeric film containing silver nitrate to deliver silver ion to said periodontal pocket or surgical site sufficient to exert an antimicrobial effect for at least fourteen days at or adjacent to said pocket or site.

2. The method of claim 1, wherein the polymeric film further comprises one or more polymeric materials selected from the group consisting of gelatin, polyethylene glycol, polypropylene glycol, polytetramethylene glycol, copolymers of ethylene oxide and propylene oxide, copolymers of polyethylene glycol and polypropylene glycol, polyether urethane, hydroxyethyl cellulose, hydroxypropylmethyl cellulose, alginate, collagen, polyethylmethacrylate, cellulose acetate, ethyl cellulose, propylene glycol, polyacrylic acid, crosslinked polyacrylic acid, propylene glycol, Carbopol.TM., hydroxyethyl methacrylate/methyl methacrylate copolymer, silicon/ethyl cellulose/polyethylene glycol, hydroxypropyl cellulose, polyethylene oxide, urethane polyacrylate, polystyrene, polysulfone, polycarbonate, polyorthoesters, polyanhydrides, poly(amino acids), partially and completely hydrolyzed alkylene-vinyl acetate copolymers, polyvinyl chloride, polymers of polyvinyl acetate, polyvinyl alkyl ethers, polyvinyl fluoride, polyurethane, polyamide, styrene acrylonitrile copolymers, poly(ethylene oxide), poly(ethylene terephthalate), poly(alkylenes), poly(vinyl imidazole), poly(esters) and combinations of two or more of these polymers.

3. The method of claim 2, wherein the polymeric film is biodegradable.

4. The method of claim 1, wherein the polymeric film is comprised of poly(lactide-co-glycolide).

5. The method of claim 1, wherein the polymeric film is comprised of a

combination of polyethylene glycol and poly(lactide-co-glycolide).

6. The method of claim 1, wherein the film is deformable at room and body temperature.

7. The method of claim 2, wherein the polymeric film comprises a plasticizer.

8. The method of claim 1, wherein the concentration of silver ion in an aqueous environment of the pocket or site is in the range of 0.1 to 5.0 ppm.

9. The method of claim 8, wherein the aqueous environment is saliva or crevicular fluid.

10. The method of claim 1, wherein the polymeric film is formulated to release an antimicrobial level of silver ions for greater than or equal to 4 weeks.

11. The method of claim 1, wherein the polymeric film is formulated to release an antimicrobial level of silver ions for up to 12 weeks.

12. The method of claim 1, wherein periodontal disease-causing microorganisms are members of microbe species selected from the group consisting of Actinobacillus actinomycetemcomitans, Bacteroides forsythus, Camphylobacter rectus, Eikenella corrodens, Fusobacterium mucleatus ss vincentii, Peptostreptococcus micros, Porphyromonas gingivalis, Prevotella denticola, Prevotella intermedia, Prevotella nigrescens, Streptococcus intermedius, Treponema denticola, Campylobacter gracilis, Actinomyces viscosus and mixtures of two or more of these species.